UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,394	04/04/2005	Eric Verschueren	234854	5786

23460 7590 08/06/2008
LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
CHICAGO, IL 60601-6731

EXAMINER	
ZIMMERMAN, JOSHUA D	

ART UNIT	PAPER NUMBER
2854	

MAIL DATE	DELIVERY MODE
08/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/530,394
Filing Date: April 04, 2005
Appellant(s): VERSCHUEREN, ERIC

Christopher T. Griffith
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5/20/08 appealing from the Office action mailed 11/01/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2002/0098288	Kamitani	07-2002
WO 99/21715	McCullough et al.	05-1999

5,380,612	Kojima et al.	01-1995
6,007,240	Price	12-1999

Lawrence E. Nielson. "Mechanical Properties of Polymers and Composites." 1974. Vol. 1, pp. 94-95.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 4, 5, 6, 17, and 22 are rejected under 35 U.S.C. 103(a) as being obvious over Kamitani (US 2002/0098288) in view of McCullough et al. (WO 99/21715).

Regarding claim 1 Kamitani teaches “a method of making a heat-sensitive lithographic printing plate precursor (paragraph 11) comprising the steps of

(i) providing a web of a lithographic support having a hydrophilic surface (paragraph 12 and paragraph 47, lines 13-15);

(ii) applying a coating comprising a phenolic resin on the hydrophilic surface of the web (paragraph 51);

(iii) drying the coating (paragraph 12);

(iv) heating the web wherein the temperature is maintained above 150ºC (paragraph 12, 3rd example from the bottom of table 1); and

(v) winding the precursor on a core or cutting the precursor into sheets (paragraph 70)."

Kamitani does not specifically teach that "the temperature is maintained above 150ºC during a period of between 1 and 30 seconds." Kamitani does suggest the ability to vary the temperature and time conditions in order to achieve desired results (see, for example, Table 1 and Table 2). It is acknowledged that Kamitani teaches that increasing the temperature of the web to above 150°C for a period of time not exceeding 5 seconds results in deleterious effects (Tables 1 and 2).

McCullough et al. teach a method of heating a printing plate precursor (abstract). Further, McCullough et al. teach the desire and ability to vary, by trial and error, the time and temperature settings to achieve desired sensitivity in the printing plate precursors (page 7, lines 23-24 and lines 33-34). McCullough et al. also teach in the sentence bridging pages 7 and 8 that when the printing plate precursors are heated to a higher temperature, the precursors should be held at that temperature for a shorter time (that is, time and temperature are results-effective variables affecting the resulting printing plate precursor sensitivity).

Further, applicant has not disclosed a criticality of the temperature and ranges of time in question. See MPEP 2144.05, (II).

Therefore, in light of the teachings of McCullough et al., it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to determine for how long the web can be maintained above 150°C to

achieve a successful printing material with a desired sensitivity, and modify the method of Kamitani accordingly.

Regarding claim 4, Kamitani further teaches “wherein the heating step is carried out by exposing the precursor to infrared or microwave radiation (paragraphs 33 and 37).”

Regarding claim 5, Kamitani further teaches “further comprising a cooling step between step (iv) and step (v) (paragraph 38).

Regarding claim 6, Kamitani further teaches “wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39).”

Regarding claim 17, Kamitani further teaches “further comprising a cooling step between step (iv) and step (v) (paragraph 38).”

Regarding claim 22, Kamitani further teaches “wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39).”

2. Claims 7, 8, 10 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani and McCullough et al.

Kamitani and McCullough et al. teach all that is claimed in claims 5, 6 and 22, as discussed above.

Regarding claims 7 and 23, Kamitani and McCullough et al. do not specifically teach "wherein said average cooling rate is at least 0.5ºC/s." However, Kamitani does teach the use of a forced cooling system (paragraph 39) in conjunction with a continuous web-type system (figure 1). The exact cooling rate is not disclosed, but this is a rapid cooling system (paragraph 41) similar to the system claimed by applicant (page 8, lines 3-7 of applicant's disclosure). Further, Kamitani teaches the desire to have a short cooling time in order to decrease the time until an overcoat layer can be applied (last sentence of paragraph 39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to set the cooling rate at a rate higher than 0.5ºC/s in order to achieve a quick cooling time in order to prepare the precursor for an overcoat.

Regarding claims 8, 24 and 25, applicant admits the Tg of phenolic resins to be between 75ºC and 95ºC (page 10, lines 5-7 of applicant's disclosure). Kamitani discloses cooling from temperatures above 95ºC (Table 1 and Table 2) to temperatures below 75ºC (paragraph 41). The exact cooling rate is not disclosed, but this is a rapid cooling system (paragraph 41) similar to the system claimed by applicant (page 8, lines 3-7 of applicant's disclosure). Further, Kamitani teaches the ability change the cooling time to meet process needs (last sentence of paragraph 39). Also, it is an inherent property of polymer processing that cooling too quickly from a temperature above the Tg to a temperature below the Tg results in voids and/or other defects in the polymer microstructure, thus deteriorating the polymer stability. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine

experimentation, to make the cooling rate less than 10ºC/s in order to prevent the formation of voids and/or other defects, so as to enhance the stability of the polymer in the printing plate precursor.

Regarding claim 10, Kamitani further teaches "T1 is Tg+20ºC and T2 is Tg-20ºC (paragraph 41 and table 1 and table 2. The high temperatures are 20 degrees higher than Tg and the low temperatures are 20 degrees lower than Tg).

3. Claims 3, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani and McCullough et al. as applied to claim 1 above, further in view of Kojima et al. (US 5,380,612).

Regarding claim 3, Kamitani does not specifically teach "wherein the heating step is carried out by blowing hot air or steam onto the precursor." However, Kamitani does suggest it is possible to use hot air to heat the printing plate (paragraph 37, lines 2-3). Further, Kojima et al. teach the equivalence of hot air heaters to infrared heaters (column 10, lines 55-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a hot air heater in place of the heater of Kamitani to save money by using existing hot air heaters.

Regarding claim 16, Kamitani further disclose "further comprising a cooling step between step (iv) and step (v) (paragraph 38)."

Regarding claim 19, Kamitani further disclose "wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39)."

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani and McCullough et al. in view of Kojima et al. as applied to claims 3, 16, and 19 above.

Regarding claim 21, Kamitani in view of Kojima et al. does not specifically teach "wherein said average cooling rate is at least 0.5ºC/s." However, Kamitani does teach the use of a forced cooling system (paragraph 39) in conjunction with a continuous web-type system (figure 1). The exact cooling rate is not disclosed, but this is a rapid cooling system (paragraph 41) similar to the system claimed by applicant (page 8, lines 3-7 of applicant's disclosure). Further, Kamitani teaches the desire to have a short cooling time in order to decrease the time until an overcoat layer can be applied (last sentence of paragraph 39). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to set the cooling rate at a higher than 0.5ºC/s in order to achieve a quick cooling time in order to prepare the precursor for an overcoat.

5. Claims 9, 26, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani and McCullough et al., as applied to claims 8, 24 and 25 above, in view of Price (6,007,240).

Regarding claims 9, 26 and 27, Kamitani and McCullough et al. do not specifically disclose three different phases. However, it is an inherent property of polymer processing that cooling too quickly from a temperature above the Tg to a temperature below the Tg results in voids and/or other defects in the polymer microstructure, thus

deteriorating the polymer stability. It is also a property of the glass transition region that polymer relaxation effects are stronger than above or below the transition region. Price teaches this fact (column 5, lines 63-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to have a slower cooling rate in the glass transition region in order to reduce the formation of voids and/or other defects, so as to enhance both the microstructure and the stability of the polymer in the printing plate precursor.

Regarding the further limitation of a cooling rate of at least 10ºC/s in the first and third phases, Kamitani teaches the desire to have a short cooling time in order to decrease the time until an overcoat layer can be applied (last sentence of paragraph 39). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to set the cooling rate at a rate higher than 10ºC/s in these regions in order to achieve a quick cooling time in order to prepare the precursor for an overcoat.

Regarding claim 28, Kamitani further teaches "T1 is Tg+20ºC and T2 is Tg-20ºC (paragraph 41 and table 1 and table 2. The high temperatures are 20 degrees higher than Tg and the low temperatures are 20 degrees lower than Tg).

6. Claims 2, 12, 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani as applied to claim 1 above, in view of McCullough et al. (WO 99/21715). Kamitani teaches all that is claimed in claim 1, as discussed above. Kamitani does not specifically teach "wherein during the heating step the web

temperature is maintained above 170ºC during a period of between 1 and 30 seconds.” Kamitani does suggest the ability to vary the temperature and time conditions in order to achieve desired results (see, for example, Table 1 and Table 2). McCullough et al. teach a method of heating a printing plate precursor (abstract). Further, McCullough et al. teach the desire and ability to vary, by trial and error, the time and temperature settings to achieve desired sensitivity in the printing plate precursors (page 7, lines 23-24 and lines 33-34). McCullough et al. also teach that when the printing plate precursors are heated to a higher temperature, the precursors should be held at that temperature for a shorter time (see the sentence bridging pages 7 and 8). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to maintain the temperature of the precursors above 170ºC for a period of between 1 and 30 seconds in order to achieve a desired sensitivity.

Regarding claim 12, Kamitani further teaches “wherein the heating step is carried out by exposing the precursor to infrared or microwave radiation (paragraphs 33 and 37).”

Regarding claim 30, Kamitani further teaches “further comprising a cooling step between step (iv) and step (v) (paragraph 38).”

Regarding claim 32, Kamitani further teaches “wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39).”

7. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani in view of McCullough et al. as applied to claims 2, 12, 30 and 32 above.

Kamitani in view of McCullough et al. fails to specifically teach “wherein said average cooling rate is at least 0.5ºC/s.” However, Kamitani does teach the use of a forced cooling system (paragraph 39) in conjunction with a continuous web-type system (figure 1). The exact cooling rate is not disclosed, but this is a rapid cooling system (paragraph 41) similar to the system claimed by applicant (page 8, lines 3-7 of applicant’s disclosure). Further, Kamitani teaches the desire to have a short cooling time in order to decrease the time until an overcoat layer can be applied (last sentence of paragraph 39). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to set the cooling rate at a rate higher than 0.5ºC/s in order to achieve a quick cooling time in order to prepare the precursor for an overcoat.

8. Claims 11, 15, 18, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani in view of McCullough as applied to claim 2 above, and further in view of Kojima et al. (US 5,380,612).

Regarding claim 11, Kamitani does not specifically teach “wherein the heating step is carried out by blowing hot air or steam onto the precursor.” However, Kamitani does suggest it is possible to use hot air to heat the printing plate (paragraph 37, lines 2-3). Further, Kojima et al. teach the equivalence of hot air heaters to infrared heaters (column 10, lines 55-58). It would have been obvious to one of ordinary skill in the art at

the time of the invention to use a hot air heater in place of the heater of Kamitani to save money by using existing hot air heaters.

Regarding claim 29, Kamitani further teaches “further comprising a cooling step between step (iv) and step (v) (paragraph 38).”

Regarding claim 31, Kamitani further disclose “wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39).”

Regarding claim 15, Kamitani further teaches “further comprising a cooling step between step (iv) and step (v) (paragraph 38).”

Regarding claim 18, Kamitani further teaches “wherein during the cooling step the web temperature of the precursor is reduced at an average cooling rate which is higher than if the precursor would be kept under ambient conditions (paragraph 39).”

9. Claims 20 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamitani in view of McCullough et al. further in view of Kojima et al. as applied to claims 11, 29 and 31 above.

Regarding claims 20 and 33, Kamitani in view of McCullough et al. further in view of Kojima et al. does not specifically teach “wherein said average cooling rate is at least 0.5ºC/s.” However, Kamitani does teach the use of a forced cooling system (paragraph 39) in conjunction with a continuous web-type system (figure 1). The exact cooling rate is not disclosed, but this is a rapid cooling system (paragraph 41) similar to the system claimed by applicant (page 8, lines 3-7 of applicant’s disclosure). Further, Kamitani

teaches the desire to have a short cooling time in order to decrease the time until an overcoat layer can be applied (last sentence of paragraph 39). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, through routine experimentation, to set the cooling rate at a rate higher than 0.5ºC/s in order to achieve a quick cooling time in order to prepare the precursor for an overcoat.

(10) Response to Argument

Argument 1

Section a)

Appellant points out that in the Final Office Action it was stated:

> "It is acknowledged that Kamitani teaches that increasing the temperature of the web above 150°C for a period of time not exceeding 5 seconds results in deleterious effects (Tables 1 and 2)."

However, what Kamitani actually teaches is that *heating the web* with an infrared heating device whose set temperature is at a certain temperature *for 5 seconds* such that the ***exit temperature*** of the web is 153° results in deleterious effects. See specifically Table 1. While the difference between the two statements is subtle, the ramifications are more than subtle.

The temperature reading of 153°C is only at the exit of the heating chamber, at the temperature sensor (item 64), which is located at least some distance apart from the

heating chamber (item 52). As one having ordinary skill in the art would realize, it would take some time for the printing plate precursor to travel the distance between the heating chamber and the temperature sensor, and it could be reasonable to assume that the temperature of the web was maintained above 150°C for more than one second, thus Kamitani could actually *anticipate* the claim. However, since the actual amount of time the web is maintained at what temperature cannot be proven without experimental facts, the obviousness rejection as stated above is asserted to be equally as valid.

Appellant further argues that Kamitani teaches away from the temperature limitation of the claimed method because Kamitani specifically states:

> Specifically, for a thermal type digital direct printing plate, the final reached temperature of the photosensitive coated layer must be 125 to 145°C.

While the Examiner does not dispute that Kamitani states this, one must take into consideration the teachings as a whole. Specifically, Kamitani is giving a hard limit *on the temperature only*. Clearly, one having ordinary skill in the art would realize that the process is dependent upon both temperature *and* time. At best, Kamitani gives a hard limit on the final reached temperature of the photosensitive coated layer *when heated in* an infrared oven for a *specific time* (See tables 1 and 2). This falls short of teaching a hard limit with respect to *both* time *and* temperature. What one having ordinary skill in the art would clearly learn from Kamitani is that the processing of the printing plate is

dependent upon temperature and time, as Kamitani clearly suggests the ability to vary the temperature and time conditions in order to achieve desired results (see, for example, Table 1 and Table 2).

Regarding the argument that there would be no expectation of success, Appellants are again directed to the fact that, according to Table 1 of Kamitani, a *working* printing plate was achieved when the temperature of the web exceeded 150°C.

Therefore, one having ordinary skill in the art, after taking the teachings of Kamitani, would turn to the teachings of McCullough et al. which offer sufficient motivation to modify the method of Kamitani.

Specifically, McCullough et al. teach that when higher temperatures are used, lower times should be used (sentence bridging pages 7 and 9). McCullough et al. further teach, and even *encourage*, using trial and error to determine the heating temperature (page 7, lines 23-24) and the heating time (page 7, lines 33-35). In fact, McCullough et al. *explicitly* state that the upper temperature limit and the heating time are left up to the reader to determine, by trial and error (page 7, lines 23-24). These teachings clearly would not prohibit or prevent one having ordinary skill in the art from trying, through routine experimentation, a higher temperature.

Appellant goes on to argue that McCullough et al. teach away from high heating temperatures and low heating times, repeatedly asserting that McCullough et al. teach a hard, unexceedable limit of 140°C for a heating temperature.

As a point of clarification regarding Appellant's argument on the top of page 7 that modifying McCullough et al. to use a temperature of 150°C would result in "an

increase of 66% over the maximum disclosed temperature of 90°C," examiner points out that this conclusion is scientifically incorrect. The Celsius scale is not an absolute scale, and therefore relative comparisons between temperatures measured on the Celsius scale cannot be made. One must convert to the Kelvin scale first. A 60° increase would result in a percentage increase of:

(60)/(90+273.15) X 100% = 16.5%

which is not a very large percentage increase in temperature.

Regarding the temperature limitation set forth by McCullough et al., while McCullough et al. do suggest an upper limit, said limit is qualified as being merely a 'guide' that McCullough et al. merely 'favor' (page 7, lines 24-25). McCullough et al. clearly teach, and even *encourage*, using trial and error to determine the heating temperature (page 7, lines 23-24). In fact, McCullough et al. *explicitly* state that the upper temperature limit is left up to the reader to determine, by trial and error (page 7, lines 23-24). These teachings clearly would not prohibit or prevent one having ordinary skill in the art from trying, through routine experimentation, a higher temperature.

Further McCullough et al. chose the specified time and temperature 'guide' because of the 'criticality' of the low times that would be required at high temperatures (page 7, lines 17-23). It is well within the scope of routine experimentation to incorporate new technologies and/or knowledge to overcome the 'criticality' of the lower heating times required by the higher temperatures.

Finally, McCullough et al. teach that using lower temperatures results in a time for heating that is "too long to be practicable" (page 7, lines 7-9), thus teaching one

having ordinary skill in the art that there are benefits to using a higher temperature: that is, less manufacturing time. This situation mirrors *In re Geisler* [116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997)], discussed in MPEP § 2144.05 (III), second full paragraph, which is reproduced below:

> Applicant argued that the prior art taught away from use of a protective layer for a reflective article having a thickness within the claimed range of “50 to 100 Angstroms.” Specifically, a patent to Zehender, which was relied upon to reject applicant’s claim, included a statement that the thickness of the protective layer “should be not less than about [100 Angstroms].” The court held that the patent did not teach away from the claimed invention. “Zehender suggests that there are benefits to be derived from keeping the protective layer as thin as possible, consistent with achieving adequate protection. A thinner coating reduces light absorption and minimizes manufacturing time and expense. Thus, while Zehender expresses a preference for a thicker protective layer of 200-300 Angstroms, at the same time it provides the motivation for one of ordinary skill in the art to focus on thickness levels at the bottom of Zehender’s suitable’ range- about 100 Angstroms- and to explore thickness levels below that range. The statement in Zehender that [i]n general, the thickness of the protective layer should be not less than about [100 Angstroms]’ falls far short of the kind of teaching that would discourage one of skill in the art from fabricating a protective layer of 100 Angstroms or less. [W]e are therefore not convinced that there was a sufficient teaching away in the art to overcome [the] strong case of obviousness’ made out by Zehender.”

Clearly, the instant situation is similar to *In re Geisler,* in that Kamitani and McCullough et al. teach what temperatures *should* be used, while simultaneously teaching one having ordinary skill in the art that there are benefits to be had in using a higher temperatures with a lower time.

Appellant’s assertion that *In re Geisler* is not applicable is not found persuasive. The Examiner believes the fact pattern in *In re Geisler* is more than “sufficiently similar” to that of the current case, as required by MPEP § 2144 (III), as explained above.

Regardless, the specifics of the temperature and time guides of McCullough et al. are irrelevant, since the only teaching used or required in the rejection outlined above is that at higher temperatures, lower holding times are desired, and that the

temperature and hold times are results-effective variables that one having ordinary skill in the art is encouraged to vary.

Appellant also argues that one having ordinary skill in the art would not have a reasonable expectation of success in combining the teachings of McCullough et al. with those of Kamitani because of their alleged teaching away of the higher temperatures. However, McCullough et al. and Kamitani both teach using higher temperatures and lower hold times, with Kamitani clearly disclosing heating at temperatures above 150°C for periods of time on the order of seconds (Tables 1 and 2) and McCullough et al. specifically encourage one having ordinary skill in the art to explore higher temperatures and lower hold times (sentence bridging pages 7 and 8) to achieve a desired sensitivity (sentence bridging pages 6 and 7).

Therefore, since McCullough et al. is relied upon for teaching that for higher temperatures, lower holding times are desired, and both Kamitani and McCullough et al. teach that the temperature and hold times are results-effective variables, the motivation is present for one having ordinary skill in the art to use routine experimentation to determine the optimal temperature and hold times based on the disclosures and teachings of Kamitani. In this instance, one having ordinary skill in the art would have been motivated to explore, during routine experimentation, temperatures around 150°C and hold times around 5 seconds (as clearly disclosed in Tables 1 and 2) in order to achieve a desired sensitivity. This clearly renders obvious Appellant’s claimed invention.

Appellant is directed to MPEP § 2144.05, paragraph II and especially paragraph III.

Section b)

Appellant merely repeats the arguments set forth in Section 1.a. Therefore, the responses above are hereby repeated.

Section c)

Appellant argues that no reference has been provided to show the alleged inherent polymer processing property that cooling too quickly from a temperature above the Tg to a temperature below Tg results in voids and/or other defects. Even though the Examiner is certain that Appellant is aware of this property, relevant pages of "Mechanical Properties of Polymers and Composites" by Lawrence E. Nielson are provided for the Board. Specifically, attention is directed to the last sentences of the first paragraph on page 94. It is noted that the 'free volume' referenced by Nielson corresponds to the voids which are cited by Examiner.

Argument 2

Section a)

Appellant merely repeats the arguments set forth in Section 1. Therefore, the responses above are hereby repeated.

Section b)

Appellant merely repeats the arguments set forth in Section 1.c. Therefore, the responses above with respect to Section 1.c. are hereby repeated.

<u>Argument 3</u>

Appellant merely repeats the arguments set forth in Section 1. Therefore, the responses above are hereby repeated.

<u>Final Remarks</u>

Examiner would like to call attention to the fact that now-canceled claim 41 recited that the temperature of the web be maintained above 150°C for a period between **<u>0.1</u>** and 60 seconds, differing from the pending claims in the lower limit of the time range. As stated in the final rejection of 11/01/07, Appellant has yet to set forth any criticality of the time between 0.1 and 1 second, and how it patentably differentiates from the range of 1 to 60 seconds.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Joshua Zimmerman/

Conferees:

/Judy Nguyen/

Supervisory Patent Examiner, Art Unit 2854

/Darren Schuberg/

Supervisory Patent Examiner, Art Unit 2834